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SQM INTERNATIONAL SERIES

The SQM INTERNATIONAL SERIES" switchers offer a family of seven highly versatile models ranging from 150 watts to 350 watts in continuous output power. In addition to their constant output power rating all units feature higher peak power capabilities to accommodate initial "turn-on/spin-up" loads required by various computer peripherals such as multiple disc drive, tape drive, and printer applications. Up to five outputs are available on the SQM 355 and SQM 205 models.

The "SQM INTERNATIONAL SERIES" features state-of-the-art feed forward designs while utilizing the proven dependability and economy of bipolar switching technology. All units are equipped with primary circuit protection to guard against accidental application of 230V when configured for 115V operation.

Standard features on most units include:

- International input capability (90-132/180-264 VAC, 47-440Hz)
- Primary circuit protection against overvoltage
- Built-in line filtering meets the requirements of FCC Level B and VDE 0871 Level A
- 3750 VAC Safety Isolation (4mm spacing primary to GND, 8mm spacing primary to secondary)
- Shielded power transformers
- Built-in overload and overvoltage protection
- Overtemperature shut-down
- Remote sense capability (except SQM355 & 205 models)
- Vacuum impregnated magnetics
- Fixed frequency pulse-width modulation
- Nominal 24-hour high temperature burn-in, AC cycled
- UL recognized (UL478, UL1950)
- TUV approved (IEC380, VDE0806, EN60950)
- CSA certified (selected models)
- 100% computer final test

Options include:

- Universal input: 90-264 VAC Autoranging
- TTL-Hi or TTL-Lo power fail detect circuitry (customer specified)
- Remote inhibit: TTL compatible
- Power Valid Signal
- EMI/RFI cover
- Fan/Cover Assembly

All units meet the following international specifications for safety isolation and EMI/RFI emissions:

UL478	EN60950	UL1950	IEC380
CSA22.2/	BS6301	VDE0806	FCC20708 LEVEL B
No. 234	VDE871	LEVEL A	

"SQM INTERNATIONAL SERIES" switchers are guaranteed for one full year covering all parts and labor.

SQM 150 WATT MODEL

SQM 225 WATT MODEL

SPECIFICATIONS



Input:	90-132VAC/180-264VAC, 47-440Hz	Cold Start
Inrush:	15A @ 115V for 1/2 cycle 30A @ 230V for 1/2 cycle	
Output:	See output voltage table	
Line Regulation:	0.2%, all outputs	
Load Regulation:	1%, main output 5%, aux no. 1 1%, aux no.'s 2 and 3	
Adjustment Range:	±5%, aux no.'s 2 and 3 and main output	
Centering:	±3% aux no. 1	
Cross Regulation:	3% aux no. 1 (change main output from 50% to 100% of max rated load)	
Ripple and Noise:	50mV P-P max, main output (10MHz bandwidth) 1% of nominal, aux no.1 (10MHz bandwidth) 100mV P-P max, aux no.'s 2 and 3 (10MHz bandwidth)	
Efficiency:	75% typical	
Operating Temperature:	0-50°C at full rated load. Derate to 50% of full rated load at 70°C.	
Temperature Coefficient:	0.02% per °C	
Overvoltage Protection:	OVP on main output is set between 6-6.5 V. This protection is reset by recycling input power.	
Overload Protection:	All outputs are protected against overload and short circuit conditions. Recovery is automatic when load is reduced.	
Holdover Storage:	16mSEC minimum at full rated load, nominal input voltage	
Transient Response:	Recovery to within 1% of nominal output voltage within 500uSEC for a 25% load step	
Overshoot:	No voltage spikes on turn-on, turn-off, or power fail	
Remote Sense:	Remote sense on the main output compensates for up to 0.5V in the load cable	
Power Fail:	A TTL signal (high or low, customer specified) appears within 5mSEC to warn of input voltage drop below minimum operating level.	
(Optional)		
Power Valid:	A TTL high signal appears when main output is within TTL operating range.	
(Optional)		
Universal Input:	90-264VAC autoranging	
(Optional)	See page 23	
Remote Inhibit:	TTL low or switch closure	
(Optional)	See page 23	

OPERATIONAL SPECIFICATIONS

Load Requirements:	SQM 150: Main output or aux no. 1 requires 10% minimum load to enable aux no's 2 and 3 to operate within specification. SQM 225: Main output requires 20% minimum load to enable aux no's 2 and 3 to operate within specification.
DC Returns:	Main output and aux no. 1 share common return. Aux output no.'s 2 and 3 are fully independent and floating.
Output Power:	SQM 150: 150 watts continuous 200 watts peak SQM 225: 225 watts continuous 300 watts peak
Safety Isolation:	Primary to secondary. 3750VAC (8mm spacing) Unit meets or exceeds the following specifications for safety: UL478 EN60950 UL1950 IEC380 CSA22.2 / NO. 234 BS6301 VDE0806
EMI/RFI:	Input filtering: unit meets requirements of FCC 20780 Class B and VDE0871 Class A.

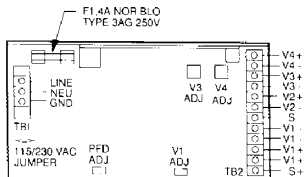
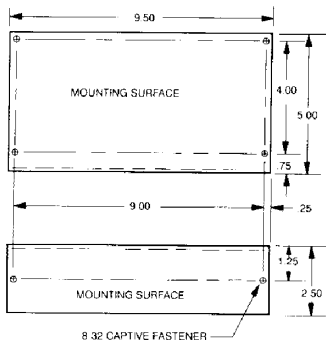
FOR ORDERING INFORMATION

SEE PAGE 14

FOR MECHANICAL OUTLINE

SEE PAGE 13

SQM 150 / 225



INPUT & OUTPUT BARRIER STRIPS ARE EQUIPPED WITH 6-32 SCREWS AND ACCEPT UP TO A .25 WIDE LUG

SQM SERIES		OUTPUT VOLTAGE TABLE				SQM SERIES	
MODEL NO.	MAIN OUTPUT (V1) Vnom Imax	AUX #1 (V2) Vnom Imax	AUX #2 (V3) Vnom Imax	AUX #3 (V4) Vnom Imax	AUX #4* (V5) Vnom Imax	MAX OUTPUT POWER	OUTLINE DIMENSIONS
SQM 150	5V @ 20A	12V @ 5A/7A PK 15V @ 5A/7A PK 24V @ 5A/7A PK	5V @ 3A 12V @ 3A 15V @ 3A 24V @ 3A	5V @ 3A 12V @ 3A 15V @ 3A 24V @ 3A	N/A	150 WATTS (200W PEAK)	9.5" x 5.0" x 2.5"
SQM 200	5V @ 30A	12V @ 7A/10A PK 15V @ 7A/10A PK 24V @ 7A/10A PK	5V @ 5A 12V @ 5A 15V @ 5A 24V @ 5A	5V @ 5A 12V @ 5A 15V @ 5A 24V @ 5A	N/A	200WATTS (250W PEAK)	10.5" x 5.0" x 2.5"
SQM 205	5V @ 25A	12V @ 7A/10A PK 15V @ 7A/10A PK 24V @ 7A/10A PK	5V @ 5A 12V @ 5A 15V @ 5A 24V @ 5A	5V @ 3A 12V @ 3A 15V @ 3A 24V @ 3A	5V @ 3A 12V @ 3A 15V @ 3A 24V @ 3A	200 WATTS (250 PEAK)	9.5" x 5.0" x 2.5"
SQM 225	5V @ 30A	12V @ 8A/12 PK 15V @ 8A/12 PK 24V @ 8A/12 PK	5V @ 5A 12V @ 5A 15V @ 5A 24V @ 5A	5V @ 5A 12V @ 5A 15V @ 5A 24V @ 5A	N/A	225 WATTS (300W PEAK)	9.5" x 5.0" x 2.5"
SQM 250	5V @ 40A	12V @ 8A/12A PK 15V @ 8A/12A PK 24 V @ 8A/12A PK	5V @ 5A 12V @ 5A 15V @ 5A 24V @ 5A	5V @ 5A 12V @ 5A 15V @ 5A 24V @ 5A	N/A	250 WATTS (300W PEAK)	12.0" x 5.0" x 2.5"
SQM 350	5V @ 50A	12V @ 8A/16A PK 15V @ 8A/16A PK 24V @ 8A/16A PK	5V @ 5A 12V @ 5A 15V @ 5A 24V @ 5A	5V @ 5A 12V @ 5A 15V @ 5A 24V @ 5A	N/A	350 WATTS (400W PEAK)	13.5" x 5.0" x 2.5"
SQM 355	5V @ 30A	12V @ 8A/16A PK 15V @ 8A/16A PK 24V @ 8A/16A PK	5V @ 5A 12V @ 5A 15V @ 5A 24V @ 5A	5V @ 5A 12V @ 5A 15V @ 5A 24V @ 5A	5V @ 5A 12V @ 5A 15V @ 5A 24V @ 5A	350 WATTS (400W PEAK)	13.5" x 5.0" x 2.5"

SQM SERIES		ORDERING INFORMATION										SQM SERIES			
		S	X	M	XXX	-	1	X	X	X	X	-	X	-	X
TRIPLE OUTPUT	T														
QUAD OUTPUT	Q														
FIVE OUTPUT	Q														
OUTPUT POWER RATING															
150 MODEL	150														
200 MODEL	200														
205 MODEL	205														
225 MODEL	225														
250 MODEL	250														
350 MODEL	350														
355 MODEL	355														
MAIN OUTPUT IS 5V ON ALL MODELS															
OUTPUT VOLTAGE	AUX #1 DASH NO.	AUX #2 DASH NO.	AUX #3 DASH NO.	AUX #4 DASH NO.											
5V	N/A	1	1	1											
12V	2	2	2	2											
15V	3	3	3	3											
24V	4	4	4	4											
FOR TRIPLE OUTPUT MODELS SUBSTITUTE A ZERO (0) INDICATING NO. OUTPUT IN THE APPROPRIATE SPACE.															
*AUX NO. 4 AVAILABLE ON SQM 205 & 355 MODELS ONLY															
CONTACT FACTORY FOR INFORMATION ON SPECIALLY MODIFIED UNITS															
		OPTIONS													
A	AUTORANGER														
I	INHIBIT														
		OPTIONS													
1	POWER FAIL/TTL HIGH														
2	POWER FAIL/TTL LOW														
3	POWER VALID/TTL HIGH														
4	POWER FAIL/TTL LOW														
5	POWER FAIL/TTL HIGH WITH COVER														
6	POWER FAIL/TTL LOW WITH COVER														
7	POWER VALID/TTL HIGH WITH COVER														
7	POWER FAIL/TTL LOW WITH COVER														
7	COVER ONLY														